Continuation of Serial No. 09/966,460
Preliminary Amdt. dated August 22, 2003, and
Reply to Office action of May 22, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A device, comprising:

a snap-action thermal switch having a pair of mutually electrically isolated contacts structured in a normally open configuration by a thermal actuator; and

a resistance element integral with the snap-action thermal switch and coupled to an output thereof the thermal switch on the pair of contacts, the resistance element being physically spaced away from the thermal actuator.

Claim 2 (Currently amended): The device of claim 1 wherein the resistance element and the snap-action thermal switch share one or more a single pair of common terminals.

Claim 3 (Original): The device of claim 1 wherein the snap-action thermal switch is structured having a pair of terminals being mutually electrically isolated when the snap-action thermal switch structured in the normally open configuration; and

the integral resistance element is electrically coupled to provide an output on the pair of electrically isolated terminals.

Claim 4 (Original): The device of claim 3 wherein the pair of mutually electrically isolated terminals are shorted together when the device senses an ambient temperature higher than a predetermined set point of the snap-action thermal switch.

Claim 5 (Original): The device of claim 3 wherein the integral resistance element is mounted on an interior surface of the snap-action thermal switch.

Claim 6 (Original): The device of claim 3 wherein the integral resistance element is mounted on an exterior surface of the snap-action thermal switch.

Continuation of Serial No. 09/966,460
Preliminary Amdt. dated August 22, 2003, and
Reply to Office action of May 22, 2003

Claim 7 (Currently amended): A thermal sensor, comprising:

a single-pole, single-throw switch having first and second electrical contacts ~~structured in a normally open configuration~~, the first contact being movable relative to the second contact;

an actuator positioned relative to the first electrical contact and responsive to a sensed temperature for spacing the first movable contact away from the second contact; and

an electrical resistor <u>electrically</u> coupled between the first and second contacts <u>and spaced away from the actuator</u>.

Claim 8 (Original): The thermal sensor of claim 7 wherein the actuator further comprises a bimetallic actuator having first and second physical states, the first state being structured to space the first movable contact away from the second contact, and the second state being structured to permit the first movable contact to contact the second contact.

Claim 9 (Currently amended): The thermal sensor of claim <u>7</u> ~~8, further comprising: a wiring harness having the single-pole, single-throw switch~~ <u>wherein the first and second electrical contacts are further coupled to respective first and second electrically conductive terminals with</u> the electrical resistor <u>being</u> electrically coupled <u>therebetween.</u> ~~thereto; and~~

~~a plurality of snap-action thermal switches electrically coupled in parallel with the single-pole, single-throw switch.~~

Claim 10 (Original): The thermal sensor of claim 9 wherein the electrical resistor is integral with the single-pole, single-throw switch.

Claim 11 (Currently amended): The thermal sensor of claim 10 wherein ~~each of the plurality of snap-action thermal switches electrically coupled in parallel with~~ the single-pole, single-throw switch <u>further</u> comprises: a <u>header having the first and second terminals mounted therein; and</u>

<u>wherein the first and second electrical contacts are spaced away from the header by the respective first and second terminals.</u>

~~single-pole, single-throw switch having first and second electrical contacts structured in a normally open configuration, the first contact being movable relative to the second contact; and~~

Continuation of Serial No. 09/966,460
Preliminary Amdt. dated August 22, 2003, and
Reply to Office action of May 22, 2003

~~an actuator positioned relative to the first electrical contact and responsive to a sensed temperature for spacing the first movable contact away from the second contact.~~

Claim 12 (Currently amended): The thermal sensor of claim 11 wherein ~~one or more of the plurality of snap-action thermal switches further comprises an~~ the electrical resistor is mounted on a surface of the header. ~~coupled between the first and second contacts.~~

Claim 13 (Currently amended): The thermal sensor of claim 12, further comprising a means for spacing the actuator away from the header. ~~determining whether each of the plurality of snap-action thermal switches is electrically coupled to the wiring harness.~~

Claims 14-19 (Cancelled)

Claim 20 (Currently amended): A three-terminal [[,]] snap-action thermal switch, comprising:

first, second and third electrical terminals mounted in a header, the first, second and third terminal being mutually spaced apart and mutually electrically isolated and being electrically isolated from the header;

a fixed electrical contact being positioned on the first terminal;

a movable electrical contact being positioned on the second terminal and being biased into electrical contact with the fixed electrical contact;

a bimetallic actuator being convertible as a function of temperature between a first state wherein an actuation portion is positioned to space the movable electrical contact away from the fixed electrical contact and a second state wherein the actuation portion is positioned to permit electrical contact between the movable electrical contact and the fixed electrical contact; and

an electrically resistive element spaced away from the actuator and electrically coupled between the third electrical terminal and one of the first and second electrical terminals.

Claim 21 (Original): The switch of claim 20, further comprising a housing coupled to the header and cooperating with the header to encase the fixed and movable contacts.

Claim 22 (Original): The switch of claim 21 wherein the electrically resistive element is encased within the cooperating housing and header.

Continuation of Serial No. 09/966,460
Preliminary Amdt. dated August 22, 2003, and
Reply to Office action of May 22, 2003

Claim 23 (Original): The switch of claim 21 wherein the electrically resistive element is external to the cooperating housing and header.

Claim 24-27 (Cancelled)